1. (Currently Amended) A method of converting AC power into DC power, the method comprising:

receiving the AC power;

converting the AC power into the DC power by way of a rectification device, wherein the rectification device is capable of being controlled to switch on at a plurality of time instants;

experiencing at least one of a first reduction in a first characteristic of the received AC power and a second reduction in a second characteristic of the DC power; ~~and~~

changing at least one of the time instants at which the rectification device is to be switched on;

wherein both the first reduction in the first characteristic and the second reduction in the second characteristic are experienced; and

wherein the at least one time instant is changed when at least one of the first and second reductions is sufficiently large that an increase in at least one of the first and second characteristics could result in an excessive input current.

2. Canceled.

3. (Currently Amended) The method of claim ~~2~~1, wherein each of the time instants corresponds to a respective firing angle value for a respective period associated with the AC power, and wherein the changing of the time instants corresponds to variations in the respective firing angle values at different periods.

4. (Original) The method of claim 3, wherein the firing angles values are changed when the second reduction is such that the second characteristic falls below a first threshold.

5. (Original) The method of claim 4, further comprising:

returning the firing angle values to a progressively toward a normal level after the first characteristic increases above a second threshold.

6. (Original) The method of claim 5, wherein the returning of the firing angle values toward the normal level is graduated in at least one of a linear manner and a nonlinear manner, so that an inrush current output does not exceed a maximum threshold as the returning occurs.

7. (Original) The method of claim 5, wherein the first characteristic is an RMS voltage of at least one of three phases of the received AC power, and wherein the second characteristic is a rectified voltage of the DC power.

8. (Original) The method of claim 7 wherein, after the second characteristic has fallen below the first threshold and until the first characteristic has attained the second threshold, the firing angle is calculated based upon at least one of the RMS voltage and the rectified voltage of the DC power.

9. (Original) The method of claim 8, wherein the firing angle values are calculated at least in part based upon the ratio of the rectified voltage to the RMS voltage, and wherein the RMS voltage used for the calculation is limited to a minimum value.

10. (Original) The method of claim 5, wherein the returning only occurs if an increase of the first characteristic above at least one of the second threshold and a third threshold occurs within a first time period following an occurrence of the first characteristic falling below the third threshold.

11. (Original) The method of claim 5, wherein the rectification device ceases being switched on at the time instants specified by the firing angle values if the first characteristic falls below the third threshold.

12. (Original) The method of claim 4, wherein the rectification device and a controller controlling the rectification device are shut down if the first characteristic falls below a third threshold and does not rise above at least one of the third

threshold and the second threshold within a maximum amount of time.

13. (Original) The method of claim 12, wherein the first threshold is determined based upon at least one sample of the second characteristic that has been heavily sampled, wherein the second threshold is a 90% of a normal level of an RMS voltage corresponding to the received AC power, and wherein the third threshold is less than 50% of the normal level of the RMS voltage.

14. (Original) The method of claim 3, wherein the firing angles values are varied changed in accordance with at least one of a linear, nonlinear and general mathematical function based upon at least one of the first characteristic, the second characteristic and a third characteristic.

15. (Original) The method of claim 1, wherein the rectification device is selected from at least one of a power thyristor/silicon-controlled rectifier (SCR), an Insulated Gate Bipolar Transistor (IGBT), a Gate Turn-off, and a semiconductor switching device.

16. (Currently Amended) A power conversion apparatus comprising:

an AC power input port;

a DC power output port;

a rectification component coupled between the AC power input port and the DC power output port, wherein the rectification component includes at least one switchable device that is capable of being controlled to switch on at a plurality of time instants;

a control device coupled to the rectification component that determines the time instants and controls the switching on of the at least one switchable device to occur at the determined time instants;

wherein the control device receives information concerning at least one of a first characteristic of the AC power input and a second characteristic of the DC power output, ~~and~~

wherein the control device adjusts the time instants at which the switching on

of the switchable device occurs;

wherein the control device receives information concerning both the first and second characteristics of the AC power input and the DC power output, respectively; and

wherein the control device adjusts the time instants when the control device determines that at least one of the first and second characteristics has varied sufficiently that there is a risk of an excessive inrush current being drawn from an AC source and provided at the DC power output port.

17. Canceled.

18. (Currently Amended) The power conversion apparatus of claim ~~17~~16, wherein the control device determines the time instants as firing angle values.

19. (Original) The power conversion apparatus of claim 18, wherein the control device adjusts the firing angle values when the control device determines that the second characteristic of the DC output power has satisfied a first test.

20. (Original) The power conversion apparatus of claim 19, wherein the control device causes the firing angle values to return to a normal value after the control device determines that the first characteristic has satisfied a second test.

21. (Original) The power conversion apparatus of claim 20, wherein the firing angle is returned to the normal value in a graduated manner so that an inrush current does not exceed a maximum level as the returning occurs.

22. (Original) The power conversion apparatus of claim 19, wherein the control device is configured to stop switching on the switchable device if the first characteristic satisfies an additional test, and further shuts down the power conversion apparatus if the first characteristic fails to rise above a minimum level within a maximum allowable time.

23. (Original) The power conversion apparatus of claim 18, wherein the power conversion apparatus is configured to convert first, second and third phases of AC power into DC power, and further comprising second, third, fourth, fifth and sixth switchable devices, each of which is controlled to switch on at a respective firing time instant by the control device.

24. (Original) The power conversion apparatus of claim 23, wherein each of the switchable devices is selected from the group consisting of a power thyristor/silicon-controlled rectifier, an Insulated Gate Bipolar Transistor (IGBT), a Gate Turn-off, and a semiconductor switch.

25. (Currently Amended) The power conversion apparatus of claim ~~17~~18, wherein the control device includes a sensing means for sensing a first quantity related to the first characteristic and for sensing a second quantity related to the second characteristic.

26.-29. (Canceled).

30. (New) A system for converting AC power to DC power comprising:

a rectifier configured to receive AC power at an input and having at least one switch controllable to convert the AC power to DC power provided to an output of the rectifier; and

a controller configured to monitor at least one of the input and the output of the rectifier to identify a reduction in the AC power and control the at least one switch to control an amount of inrush current permitted upon a recovery of the AC power following the reduction.

31. (New) The system of claim 30 wherein the controller is further configured to adjust a firing angle of the at least one switch to limit the amount of inrush current generated upon a recovery of the AC power following the reduction.

32. (New) The system of claim 30 wherein the controller is further

configured to monitor at least one of the input and the output of the rectifier for a voltage indicative of the recovery from the reduction in the AC power.

33. (New) The system of claim 32 wherein the voltage indicative of the recovery is at least three-quarters of a voltage prior to the reduction in the AC power.

34. (New) The system of claim 32 wherein the controller is further configured to advance a switching-on time of the at least one switch from a normal switching-on time upon identifying the reduction in the AC power.

35. (New) The system of claim 34 wherein the controller is further configured to return the switching-on time of the at least one switch to the normal switching-on time following the recovery from the reduction in the AC power.

36. (New) The system of claim 34 wherein the controller is further configured to incrementally move the switching-on time of the at least one switch toward the normal switching-on time following an at least partial recovery from the reduction in the AC power.

37. (New) The system of claim 36 wherein the controller is further configured to move the switching-on time in at least one of a linear and a nonlinear progression toward the normal switching-on time to maintain a current delivered at the output below a threshold.